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FEDERAL COMMUNICATIONS COMMISSION
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

Amendment of the Commission's Rules with
Regard to the 3650-3700 MHz Government
Transfer Band

ET Docket No. 98-237

To: The Commission

REPLY COMMENTS OF
BLOOSTON, MORDKOFKY, JACKSON & DICKENS

The law firm of Blooston, Mordkofsky, Jackson & Dickens, Washington, D.C., submits these reply comments in the above captioned proceeding on behalf of the following rural telecommunications carriers: Blackfoot Telephone Cooperative Inc. and Clark Fork Telecommunications Inc. of Missoula, Mont.; CommNet Cellular Inc., Englewood, Colo.; Kerrville Telephone Company, Kerrville, Texas; Lincoln County Telephone System Inc., Pioche, Nev.; Minnesota Southern Cellular Telephone Company, Mankato, Minn.; Peñasco Valley Telephone Cooperative Inc., Artesia, N.M.; Ringgold Telephone Company, Ringgold, Ga.; Sully Buttes Telephone Cooperative Inc., Highmore, S.D.; and 3 Rivers Telephone Cooperative Inc., Fairfield, Mont. (hereafter the "Rural Carriers").¹

The Rural Carriers continue to strongly support the FCC's proposal to reallocate the 3650-3700 MHz band for commercial uses, especially for Fixed Wireless Access (FWA) services. The

¹ Blackfoot Telephone and Clark Fork Telecommunications have joined the Rural Carriers since Blooston, Mordkofsky, Jackson and Dickens filed initial comments filed in this proceeding, and hereby confirm their concurrence with the initial comments.

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comments filed in this proceeding support the Rural Carriers' showing that rural service providers would benefit most if the Commission assigns licenses in this band that are defined by the Rand McNally Basic Trading Areas (BTAs) or smaller areas. We also urge the Commission not to divide the full 50 MHz of FWA spectrum into smaller blocks. Many rural service providers could effectively use a contiguous 50 MHz to deploy broadband networks in their service areas.

I. Overview of Comments

Comments to the Commission in this proceeding tended to fall in three general categories:

1. Two other organizations representing rural carriers filed comments stressing concerns similar to those of the Rural Carriers, specifically, the detrimental impact of nationwide licensing and the need for 50 MHz blocks covering BTAs or smaller.
2. Certain parties, especially equipment manufacturers and vendors that already are involved in FWA deployments worldwide, pointed out that other countries are approving significantly more 3 GHz band spectrum for FWA services. For the sake of international commonality, which would reduce the cost of equipment development for the U.S. market, these parties ask the FCC to allocate more than the proposed 3650-3700 MHz.
3. A number of organizations filing comments, most of them from the satellite industry, seek rules to protect existing fixed satellite service (FSS) carriers with facilities in the 3650-3700 MHz and to lift the freeze on FSS applications in the 3650-3700 MHz band that the Commission ordered at the beginning of this proceeding. Most of these parties do not object to sharing the band with FWA users, so long as their other concerns are addressed.

II. Other Commenters Support the Rural Carriers' Showing That License Areas Should Be Smaller

The National Telephone Cooperative Association (NTCA) reinforces the comments of the Rural Carriers by describing exactly why national FWA licenses do not make sense. "A licensee

who obtains a single license for the entire nation, or even for a large geographic territory, will provide service to the largest metropolitan areas first,” NTCA observes at page 2 of its comments. “If a licensee receives authority to serve a small area, only those actually interested in serving an area will bother obtaining a license for it.” *Id.* at p. 3. The Rural Carriers agree with NTCA that nationwide, regional or even Major Trading Area licenses would build major metropolitan areas first. Indeed, such licensees may never extend service to rural areas, since such coverage will likely not be needed to meet the build-out requirements for the license. And since FWA will be a fixed (versus a mobile) service, there will not even be a need to cover rural areas for the purpose of serving “roamers.” Instead, the licensee can focus its efforts on serving only the most profitable communities.

As NTCA correctly observes, it makes the most sense to assign licenses to those that actually intend to use them. Carriers that already have a stake in their own regions and communities will expend more effort to use those licenses in rural areas than any national licensee could ever be expected to match.

As the Rural Telecommunications Group (RTG) observes, BTAs should be the maximum geographic size of any 3650-3700 MHz band plan. Indeed, smaller areas, such as the 728 Rural Service Areas/Metropolitan Statistical Areas (RSAs/MSAs), may be preferable if such a plan increases the chances that the licenses will be obtained by the rural carriers that will put them to the best use. Indeed, one of the Rural Carriers, Lincoln County Telephone System Inc., serves rural communities situated within a “major metropolitan” BTA, Las Vegas. Therefore, it will be difficult, if not impossible, for Lincoln County to successfully bid on the BTA license, while it could realistically bid on an RSA license. While partitioning may be an option, Lincoln County

and other rural carriers have often found it difficult to persuade larger licensees to partition on fair terms in the case of, e.g., broadband personal communications services (PCS) licenses.

If the FCC nonetheless decides to use a larger geographic area instead, the Rural Carriers continue to believe that there are other potential benefits to awarding BTA licenses. Other services, including C/D/E/F-Block PCS and local multipoint distribution service (LMDS) were auctioned using BTAs. Carriers that already hold licenses in these bands could find it easier to collocate facilities and augment those other services with FWA if 3650-3700 MHz is auctioned by BTAs as well.

Only one of the companies filing comments, Petroleum Communications Inc. (PetroCom), a provider of wireless telecommunications services to oil drilling facilities in the Gulf of Mexico, comments in favor of national or regional licensing. It asserts that nationwide licensees would be in the best position to establish FWA service rapidly and in competition with established fixed services; however, it proposes excluding the Gulf of Mexico from an auction for national or regional licenses. "The Commission has recognized that the Gulf is a unique environment and has typically handled licensing in proceedings separate from licensing services on land." PetroCom comments at p. 2.

The Rural Carriers do not oppose the suggestion that the Gulf is unique and may warrant a different license area or licensing scheme. However, the Rural Carriers cannot agree that nationwide licenses are needed for licensees to quickly become competitive. Other nationwide licensees, such as nationwide paging carriers, have not been the fastest to market. Indeed, a nationwide license would impose such a substantial burden on a single entity that it would help ensure a slower implementation of service in many markets. It is respectfully submitted that placing smaller licenses into the hands of multiple carriers will spread the construction burden,

resulting in faster service, and will help ensure that the Congressional mandate to bring service to rural areas will be met.

As discussed in the Rural Carriers' original comments, a minimum of 50 MHz is needed to provide effective advanced services. Therefore, the Rural Carriers disagree with PetroCom's proposal to split the FWA band into two licenses. Competition to FWA is already in place in the form of ISPs and other existing fixed service providers.

The Rural Carriers note that Telephone Data Systems Inc. (TDS), parent company of several wireless communications companies, including Aerial Communications Inc. and United States Cellular Corp., likewise strongly opposes national licenses, and suggests BTAs as one of the better alternatives. The Rural Carriers are puzzled, however, by TDS's call for division of the 3650-3700 MHz band into two 20 MHz blocks and one 10 MHz block. It claims to oppose 50 MHz blocks "for many of the same reasons that TDS opposes nationwide or large regional service areas." It does nothing, however, to explain this position. As discussed above, if competition is the goal of TDS, smaller bands may actually defeat this purpose. *Licenses providing 50 MHz bandwidth at the very least* are needed to support advanced services in rural areas. The equipment manufacturers' comments listed below strongly suggest such a conclusion.

III. Equipment Manufacturers Support the Need for Greater Bandwidth

Most of the equipment manufacturers that filed comments -- including Northern Telecom (Nortel), Lucent and Motorola -- held similar positions in favor of adjusting the Commission's 3650-3700 MHz proposal. They ask the FCC to follow the international trend that they expect ultimately will result in a 300 MHz (3400-3700 MHz) band for FWA services.

Nortel points out that a 300 MHz FWA allocation would be a more effective way to extend broadband communications to small businesses and would further the goal of extending such

services to all Americans, as required by Section 706 of the Telecommunications Act of 1996.

"Through wise allocation of the 3400-3700 MHz band, the Commission has an opportunity both to advance the deployment of advanced services and address the universal service needs of consumers such as those in rural and underserved areas." Nortel comments at p. 7.

There is no question that a 300 MHz FWA band would significantly benefit rural and small businesses and could facilitate broadband service to many remote residences. If in its re-examination of the 3 GHz band, the Commission decides that it can allocate more than 50 MHz -- perhaps the full 300 MHz -- the Rural Carriers would enthusiastically support such a decision.

However, we note that the Commission went into some detail describing why it did not propose an allocation of more than 50 MHz in its December 1998 Notice of Proposed Rulemaking. Therefore, the Commission may not be able to expand the band. If that is the case, the Rural Carriers repeat their view that the available 50 MHz must be assigned in a way that will maximize its benefit to rural areas. Licenses must cover geographic areas of BTA size or smaller and the available 50 MHz should not be divided into smaller blocks.

Motorola supports a single 50 MHz block in its comments. With the absence of more than 50 MHz to work with, "the allocation will prove most useful for high-speed applications if its use is limited to a single licensee per geographic area." Motorola comments at p. 2. The greatest obstacle Motorola foresees is the necessity to build a unique FWA system for the U.S. market that will not match international channel plans. There may not be "the necessary incentives for manufacturers to design specialized equipment for this small slice of spectrum in a single market," Motorola says.

Lucent Technologies' view of the band seems to be somewhat at variance with the views of other vendors. It predicts that with a licensee using all 50 MHz in a given market, time division

duplex (TDD) will be the only viable technology. Even with the use of TDD, Lucent seems to assert that FWA may be able to provide data rates higher than standard DECT 64 kbps, but which do not surpass ISDN. Lucent comments at p. 3.

Other manufacturers seem to imply as Nortel does above, that much faster data rates are possible. Nortel's statements about the ability to provide broadband service to rural areas over the 3400-3700 MHz band is based on dividing the band into blocks of 25 MHz pairs, based on frequency division duplex (FDD) technology. Surely technology could be developed to provide speeds faster than ISDN (128 kbps) in a contiguous 50 MHz channel using TDD. The Commission's Section 706 report to Congress defines broadband services as those that offer data rates of at least 200 kbps both upstream and downstream. The Commission also has stated that advancing technology could prompt it to raise that minimum data rate. Obviously, Lucent's vision does not appear to include applying FWA service to the Section 706 goals. The Rural Carriers are more persuaded by those manufacturers planning for broadband FWA applications.

IV. The Rural Carriers Do Not Oppose Satellite Carriers' Request for Interference Protection

The FCC received many comments from companies within the satellite industry that were alarmed by the Commission's decision to freeze licensing of new FSS facilities in the 3650-3700 MHz band as of December 1998. The typical comment is that the freeze "would foreclose the ability of satellite operators to make effective use of this band, strand investments made in on-orbit satellites incorporating this band and would disrupt service to existing customers." Comments of New Skies Satellites N.V. at p. 1.

The Rural Carriers believe the FCC took the prudent course by freezing FSS applications as it explores the fixed terrestrial possibilities for the 3650-3700 MHz band. However, there is ample evidence that some form of sharing between FWA and FSS earth stations ultimately will be

possible. Nortel states that current FWA designs "are radically different from those used by FSS. Studies are well advanced in ITU-R WP 4-9S to determine the criteria for sharing these frequencies between the fixed service, including FWA applications and the fixed satellite service." Nortel comments at p. 6.

Comsearch, a highly respected engineering firm that specializes in microwave spectrum coordination, devotes its comments to detailed descriptions of how to coordinate FWA service successfully with FSS and other bands on adjacent channels. "Because of the relatively limited number of earth stations receiving the extended C-band in the U.S., we believe that the traditional Part 25/101 frequency coordination process should not be overly burdensome to [fixed service] licensees in the 3650-3700 MHz band and should be maintained," Comsearch concludes in its description of on-band FSS/FWA coordination (at p. 5). The Rural Carriers agree that adequate protection from interference should be accorded to incumbent FSS licensees, and concur in the suggestion of Nortel and Comsearch that the frequency coordination process can accomplish this protection.

Two satellite companies appear to urge that the Commission to abandon all hope of FSS and FWA sharing in the 3650-3700 MHz band. The comments of Nortel, Comsearch and other companies that contributed to this record demonstrate that position to be extreme and unfounded.

GE American Communications attempts to make the case that there is no need for spectrum to support FWA services because other bands, including 24 GHz, 39 GHz and the LMDS bands at 28 GHz and 31 GHz, have been made available for WLL applications. GE American also points to broadband PCS as a possible WLL band. However, as the Rural Carriers explained in detail in their initial comments, these bands do not provide a complete solution for extending broadband service to many remote areas. Where 24 GHz, 39 GHz and LMDS are "last-mile"

solutions that will benefit many rural communities, they do not cover a substantial percentage of rural telecommunications subscribers, many of which could be reached cost-effectively by FWA -- the "last 10-mile" solution.

Furthermore, while PCS does provide a platform for WLL systems that can match POTS performance, it does not advance the goal to provide advanced broadband service (including high-speed Internet access) to *all Americans*. Due to narrower bandwidth and the need to serve mobile users, PCS simply will not do the job on its own. However, as the Rural Carriers said in their initial comments, existing rural PCS and cellular carriers could combine their current licenses with 50 MHz of contiguous spectrum in the 3650-3700 MHz bands with exciting results.

However, if GE American's estimation that FSS and FWA cannot co-exist proves true, the satellite company raises a relevant issue by analyzing the comparative value of FWA to the "extended C-band." The fact is that, as Comsearch says, there is "a relatively limited number of these [3650-3700 MHz FSS] earth stations" in the United States. But the rural areas that must be served by broadband telecommunications services are anything but limited. Reaching them all with advanced services using the currently available wireless and wireline technologies will be an impossible task.

The Commission must ask, if not FWA in 3650-3700 MHz, where will it be able to find a band that will adequately cover the "last 10 miles" that many rural consumers need? Considering the level of spectrum scarcity in the lower bands that support adequate signal propagation in rural areas, where else will it ever find an alternative band? Then it might consider the comparatively easier task of grandfathering a few FSS earth stations in the 3650-3700 MHz band and finding a new band for future earth stations.


The FCC should also ask the larger questions. What other bands are available that will aid the Commission in meeting its Section 706 obligation to extend broadband services to rural areas? How can the Commission abandon its FWA proposal in the face of its obligations under 47 U.S.C. Section 309(j)(3)(B) to promote the deployment of innovative new technologies, including deployments by "*small businesses [and] rural telephone companies*"?

V. Conclusion

The Rural Carriers are excited about the Commission's proposal to open up the 3650-3700 MHz band to commercial applications. They share the FCC's Section 706 goal to extend broadband services throughout the country. But they cannot do the job unless they have the tools. The FCC must, above all other priorities, approve 3650-3700 MHz licenses for FWA use covering BTA-sized geographic areas or smaller and it should provide all 50 MHz (or more) of the proposed band to single licensees in each geographic area.

Respectfully submitted,

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